

Response dated October 25, 2004
Appl. No. 09/213,748
Atty. Docket No. 0100.01319

REMARKS

This is in response to a non-final Office Action mailed August 25, 2004. In response to the Office Action dated August 25, 2004, Applicants respectfully traverse and request reconsideration. The Applicants wish to express gratitude to the Examiner for extending an Examiner interview on October 22, 2004.

Allowed and Allowable Claims

Applicants acknowledge the allowance of claims 31-37. Applicants note that the Examiner has indicated claims 12-13 and 24-25 as being objected to as being dependent upon an originally rejected base claim but would be allowable if rewritten in independent form to include all limitations of the base claim and any intervening claims.

Rejection of Claims Under 35 U.S.C. § 103(a)

Claims 2-4, 6-11, 14-23, 26-30 and 38 currently stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,912,710 ("Fujimoto") in view of U.S. Patent No. 6,208,354 ("Porter"). The Office Action acknowledges that Fujimoto fails to disclose a single frame buffer memory. (Office Action page 3).

Fujimoto, as understood, discloses *inter alia*, an image display control apparatus for generating a display by combining graphics data 100G and motion picture video data 100B read from a DVD medium, such as illustrated with the DVD media 100 of FIG. 1. (Fujimoto, Col. 5 lines 28-35). VRAM 103 stores graphics data 100G read out from the DVD media 100. (Fujimoto, Col. 6 lines 59-62, Fig. 1). The video data 100B read out from the DVD media 100 is supplied to the second scalar 107. (Fujimoto, Col. 6 lines 21-23, Fig. 1). Fujimoto teaches combining images of graphics and video data "by an effective pipeline operation of scaling and filtering the graphics data *without using large expensive video memory*." (Fujimoto, Col. 2 line 65- Col. 3 line 2) (emphasis added). Therefore, Fujimoto explicitly teaches away from using large expensive video memory and consequently supplies the video data 100B directly to the second scalar 107.

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As understood, Porter is directed to storing and displaying multiple graphical images in a mixed video graphics display system. Porter discloses memory 10 directly providing a video data stream 16 and graphics data stream 28 to a display overlay engine 30 having an alpha blend unit 32 to generate the display output signal 35. As agreed during the examiner interview, the undersigned and the examiner could not find where Porter as cited teaches scaling.

Regarding independent claims 4, 20, 30 and 38, the Office Action asserts that it would have been obvious to one skilled in the art to modify Fujimoto with Porter's teaching of a single frame buffer memory "because Fujimoto provides memory read and write transactions from the CPU (col. 10, lines 47-57), as does a frame buffer, whereas Porter's provision for memory allows for a single memory device that preferably a frame buffer may be substituted for a DVD memory." (Office Action, page 3). However, as stated above, Fujimoto explicitly teaches away from using large expensive video memory and therefore teaches away from enlarging VRAM 103 for storing both graphics data 100G as well as video data 100B. (Fujimoto, Col. 2 line 65- Col. 3 line 2). Instead, Fujimoto teaches supplying the video data 100B directly to the second scalar 107 rather than to VRAM 103. As a result, Fujimoto teaches away from enlarging VRAM 103 to store both graphics data 100G and video data 100B. Therefore, since Fujimoto explicitly teaches away from the use of video memory for storing video data 100B, one would not be motivated to modify Fujimoto to store video data 100B into the memory 10 of Porter. As such, Applicants submit that the present rejection is improper because the combination of Fujimoto and Porter fail to teach or suggest all of the claimed limitations based on the disclosure of both Fujimoto and Porter.

Modifying Fujimoto to store video data 100B into VRAM 103 as asserted in the Office Action would reduce the effectiveness of the pipeline operation sought by Fujimoto because the size, complexity and cost of the VRAM 103 and of the pipeline would also increase. If Fujimoto is modified by Porter as suggested in the Office Action, VRAM 103 would have to increase in size thus increasing cost. Further, VRAM 103 would increase in complexity due to the overhead in managing the separate read and write accesses to both the video data 100B and the graphics data 100G further increasing the cost of VRAM 103 in direct contradistinction with the advantages sought by Fujimoto. Further, the rejection is improper because it would not have

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been obvious to one having ordinary skill in the art to combine Fujimoto with Porter because modifying Fujimoto with Porter would change the principle of operation of Fujimoto. Since one would not be motivated to modify Fujimoto with the teachings of Porter, the Office Action fails to establish a prima facie case of obviousness. Therefore, for at least the reasons stated above, it is submitted the present rejection is improper and should be withdrawn. Reconsideration and passage of the present claims to issuance is respectfully requested.

Dependent Claims 2, 3, 6, 7, 14, 17, 19

Applicants respectfully reassert the arguments made above regarding claim 4. In addition, Applicants also submit that because the dependent claims depend from claim 4 either directly or indirectly, and as a dependent claims therefrom, the dependent claims are allowable for at least the reasons claim 4 is allowable. Applicants further submit, argued in part at least immediately above, that the dependent claims are also allowable in light of the presence of novel and non-obvious elements contained in the dependent claims that are not otherwise present in claim 4. Therefore, reconsideration and withdrawal of the present rejections is respectfully requested.

Dependent Claim 8

Applicants respectfully reassert the arguments made above regarding claim 4. In addition, Applicants also submit that because claim 8 depends from claim 4, and as a dependent claim therefrom, claim 8 is allowable for at least the reasons claim 4 is allowable. Additionally, the digital to analog converter 23 cited in Fujimoto at Col. 10 lines 35 through 37 and as shown in Fig. 8 receives audio from the PCI-PCM audio controller 204 and provides audio to the audio mixer 25. In contrast, claim 8 recites "wherein the digital to analog converter converts the video graphics output stream to an analog display signal." Since the digital to analog converter 23 processes audio rather than "the video graphics output stream", the combination of Fujimoto and Porter as claimed fails teach all the elements as arranged in the claims. Applicants further submit, argued in part at least immediate above, that claim 8 is also allowable in light of the presence of novel and non-obvious elements contained in claim 8 that are not otherwise present in claim 4.

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Dependent Claim 9

Applicants respectfully reassert the arguments made above regarding claim 4. In addition, Applicants also submit that because claim 9 depends from claim 4, and as a dependent claim therefrom, claim 9 is allowable for at least the reasons claim 4 is allowable. Further, the display driver 18C referred to in Fig. 18 "is a program for controlling a display controller 18D." Instead, claim 9 recites "wherein the display driver is adapted to receive the video graphics output stream in digital format, wherein the display driver formats the video graphics output stream in a display compatible format." Since Fujimoto merely teaches controlling a display controller, no formatting of the video graphics output stream is described. As such, Applicants submit that the present rejection is improper because the combination of Fujimoto and Porter fail to teach or suggest all of the claimed limitations based on the distinct disclosure of both Fujimoto and Porter. Applicants further submit, argued in part at least immediate above, that claim 9 is also allowable in light of the presence of novel and non-obvious elements contained in claim 9 that are not otherwise present in claim 4.

Dependent Claims 10

Applicants respectfully reassert the arguments made above regarding claims 4 and 9. In addition, Applicants also submit that because claim 10 depends from claim 4, and as a dependent claim therefrom, claim 10 is allowable for at least the reasons claim 4 is allowable. Further, Fig. 18 shows display driver 18 C coupled to a display controller 18D rather than "a display driver operably coupled to the video scaler." Among other things, no video scalar is shown in Fig 18 of Fujimoto as cited. Further, the Office Action fails to show where the combination of Fujimoto and Porter teach where the display driver formats the video graphics output stream in a display compatible format. As Therefore, Applicants submit that the present rejection is improper because the combination of Fujimoto and Porter fail to teach or suggest all of the claimed limitations based on the distinct disclosure of both Fujimoto and Porter. The Applicants further submit, argued in part at least immediate above, that claim 10 is also allowable in light of the presence of novel and non-obvious elements contained in claim 10 that are not otherwise present in claim 4.

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Dependent Claim 11

Applicants respectfully reassert the arguments made above regarding claims 4, 9 and 10. In addition, Applicants also submit that because claim 11 depends from claim 4, and as a dependent claim therefrom, claim 11 is allowable for at least the reasons claim 4 is allowable. Among other things, no graphics scalar is shown in Fig 18 of Fujimoto as cited. Therefore, the Office Action fails to show where the combination of Fujimoto and Porter teach where the display driver formats the video graphics output stream in a display compatible format. As such, Applicants submit that the present rejection is improper because the combination of Fujimoto and Porter fail to teach or suggest all of the claimed limitations based on the distinct disclosure of both Fujimoto and Porter. Applicants further submit, argued in part at least immediate above, that claim 11 is also allowable in light of the presence of novel and non-obvious elements contained in claim 11 that are not otherwise present in claim 4.

Dependent Claims 15 and 16

Applicants respectfully reassert the arguments made above regarding claim 4. In addition, Applicants also submit that because claims 15 and 16 depend from claim 4, and as a dependent claim therefrom, claims 15 and 16 are allowable for at least the reasons claim 4 is allowable. Further, Fujimoto as cited at Col. 3 lines 25-27 teaches scaling up or down the horizontal resolution of the motion picture data to achieve the desired aspect ratio. Instead, claims 15 and 16 teach "circuitry which configures a pixel rate of the video graphics output stream to produce a preferred video scaling ratio, wherein the preferred video scaling ratio is based on the ratio between the video images in the first format and the output video image." Rather than teach, among other things, a pixel rate of the video graphics output stream, Fujimoto as cited merely teaches scaling up or down the horizontal resolution of the motion picture data to achieve the desired aspect ratio. Consequently, the combination of Fujimoto and Porter fails to teach, among other things a pixel rate of the video graphics output stream. As such, Applicants submit that the present rejection is improper because the combination of Fujimoto and Porter fail to teach or suggest all of the claimed limitations based on the distinct disclosure of both Fujimoto and Porter. Applicants further submit, argued in part at least immediate above, that claims 15 and 16 are also allowable in light of the presence of novel and non-obvious elements contained in claims 15 and 16 that are not otherwise present in claim 4.

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Dependent Claim 18

Applicants respectfully reassert the arguments made above regarding claim 4. In addition, Applicants also submit that because claim 18 depends from claim 4, and as a dependent claim therefrom, claim 18 is allowable for at least the reasons claim 4 is allowable. Further, the cited portion of Fujimoto teaches reading the graphics data stored in VRAM 103 rather than "wherein the graphics decompression block receives a compressed stream of graphics data and decompresses the compressed stream of graphics data to produce the graphics data stream." Since Fujimoto as cited merely describes reading graphics data stored in VRAM 103, Fujimoto fails to teach, among other things, "the graphics decompression block receives a compressed stream of graphics data and decompresses the compressed stream of graphics data to produce the graphics data stream." Applicants further submit, argued in part at least immediate above, that claim 18 is also allowable in light of the presence of novel and non-obvious elements contained in claim 18 that are not otherwise present in claim 4.

Dependent Claims 21-23 and 26-29

Regarding claims 21-23 and 26-29, Applicants respectfully reassert the above relevant remarks especially those regarding independent claim 20. In addition, Applicants also submit that these claims depend from claim 20 and provide further patentable subject matter in view thereof. Further, it is submitted that these claims are allowable not merely as being dependent upon an allowable base claim but rather contain patentable subject matter in view of the prior art of record. Therefore, reconsideration and withdrawal of the present rejections is respectfully requested.

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

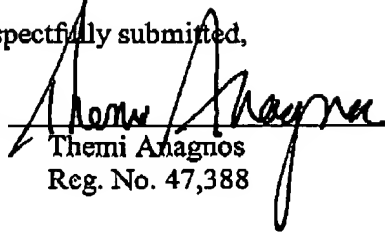
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Respectfully submitted,

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